

KEY PAD DECODER

ABSTRACT OF THE DISCLOSURE

A system for determining which key of a key-pad device is activated that prevents an unauthorized person from determining secret information therefrom. The key-pad device determines which key is activated by an algorithm that employs the same number of steps to make the determination regardless of which key is pressed. In one embodiment, the algorithm first determines if more than one key is pressed in more than one column. The algorithm then determines which key has been pressed by adding key values associated with each key on a row-by-row basis. Once the algorithm calculates the added value, it then determines whether the added key value exceeds a predetermined value to determine if more than one key has been pressed in the rows. If the added value does not exceed the predetermine value, then the added value is subtracted from another predetermined value to give the key value that is transferred from the device.